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CLAIMS

1/ A strip of lamination sectors for making a magnetic circuit of an electrical machine, the sectors being interconnected by links, said strip being designed to be wound on a mandrel to form a stack of layers of sectors, wherein said links are external to the sectors.

2/ A strip according to claim 1, wherein the links are constituted by deformable bridges of material obtained by being cut out together with the sectors.

3/ A strip according to claim 2, wherein each of the bridges of material has a portion presenting two parallel edges.

4/ A strip according to claim 2, wherein each of the bridges of material has two narrowings on either side of a middle portion.

5/ A strip according to claim 2, wherein each of the bridges of material has two concentric edges.

6/ A strip according to claim 2, wherein each bridge of material has an edge situated in line with the lateral edge of a sector to which it is connected.

7/ A strip according to claim 1, wherein the sectors are interconnected by staples.

8/ A strip according to claim 1, wherein each sector has at least one slot for passing electrical conductors.

9/ A strip according to claim 1, wherein the sectors have complementary profiles on their docking flanks.

10/ A strip according to claim 9, wherein one of the docking flanks has a tooth and the other has a notch.

11/ A method of manufacturing a magnetic circuit for an electrical machine, the method comprising the steps consisting in:

- making a strip of lamination sectors interconnected by deformable and/or hinged links, two consecutive sectors within said strip presenting adjacent lateral edges forming an angle between each other; and
- winding the strip of sectors on a mandrel so as to move said edges towards each other and thus make up a stack of layers of sectors, each sector being cut out in such a manner that its angular extent is different from an integer submultiple of a complete turn.

12/ A method according to claim 11, wherein the strip is wound on a mandrel whose outside diameter is greater than or equal to 300 mm.

13/ A method according to claim 11, wherein said mandrel is rotated.

14/ A method according to claim 11, wherein the angular width of a sector is equal to $360°.(\frac{1}{k} \pm j/n_d)$, where n_d is the total number of slots per complete turn, $\underline{k}$ is a non-zero integer that is an integer submultiple of n_d, and $\underline{j}$ is a non-zero integer.

15/ A method according to claim 14, wherein n_d is selected from the following values: 48; 60; 72; 84; 96, $\underline{j}$ lies in the range 1 to 3, and $\underline{k}$ is greater than or equal to 3, and is preferably equal to 6.

16/ A method according to claim 11, wherein the links between the sectors are used as guides for fixing bars on the stack of laminations.

17/ A magnetic circuit for an electrical machine, the circuit comprising a stack of layers of sectors formed by helically winding a strip of sectors that are interconnected by deformable and/or hinged links situated peripherally, outside the stacked sectors.

18/ A circuit according to claim 17, wherein each sector presents an angular width that is not an integer submultiple of a complete turn.

19/ A circuit according to claim 18, wherein the angular width of a sector is equal to $360°.(\frac{1}{k} \pm j/n_d)$, where n_d is the total number of slots per complete turn, k is an integer submultiple of n_d, and j is an integer.

20/ A circuit according to claim 19, wherein n_d is selected from the following values: 48; 60; 72; 84; 96, j lies in the range 1 to 3, and k is greater than or equal to 3, and preferably equal to 6.

21/ A circuit according to claim 17, wherein the inside diameter of the stack is greater than or equal to 300 mm.

22/ A circuit according to claim 17, wherein the deformable links are constituted by bridges of material cut out together with the sectors.

23/ A circuit according to claim 17, wherein the deformable links comprise staples.

24/ A circuit according to claim 17, wherein bars are fixed on the periphery of the stack, being engaged on or between the links interconnecting the sectors.

25/ An electrical machine, including a magnetic circuit as defined in claim 17.

26/ A machine according to claim 25, wherein said bars co-operate with a case of the machine to constitute cooling channels.